

What is claimed is:

1 Apparatus for a packet based system operable to process subscriber line communications effectuable between at least one digital signal processor (DSP) and a plurality of analog front ends (AFEs) and each of the plurality of AFEs coupled to at least one corresponding subscriber line for transport of a corresponding channel of data between
5 a subscriber coupled to a corresponding subscriber line and the DSP; and the apparatus for the packet based system comprising:

a bus for the transport of digital data;

an DSP I/O interface coupling the at least one DSP to said bus and said DSP I/O
10 interface for accepting a plurality of downstream channels of digital data from the DSP and for transmitting packets each associated with a portion of a corresponding one of said downstream channels to said bus and each of said packets including indicia of a targeted one of the among the AFEs coupled to a selected one of the subscriber lines for the transport of said packet to the subscriber; and

15 a plurality of AFE I/O interfaces each coupling an associated one of the plurality of AFEs to said bus and each of said plurality of AFE I/O interfaces for transmitting selected ones among said packets in which the indicia corresponds to that of the associated one of the plurality of AFEs to the selected one of the subscriber lines for the transport of said packet to the subscriber.

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20 2. A method for packet based communication effectuable between at least one digital signal processor (DSP) and a plurality of analog front ends (AFEs) and each of the plurality of AFEs coupled to at least one corresponding subscriber line for transport of a corresponding channel of data between a subscriber coupled to a corresponding subscriber
25 line and the DSP; and the method for packet based communication comprising the acts of:

accepting a plurality of downstream channels of digital data from the DSP;

transmitting packets each associated with a portion of a corresponding one of said downstream channels to said plurality of AFEs;

30 labeling each of said packets with indicia of a targeted one of the among the AFEs coupled to a selected one of the subscriber lines for the transport of said packet to the subscriber; and

accepting at the targeted one among the AFEs selected ones among the packets based on the indicia; and

transmitting the selected ones among said packets to the selected one of the subscriber lines for the transport of said packet to the subscriber.

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